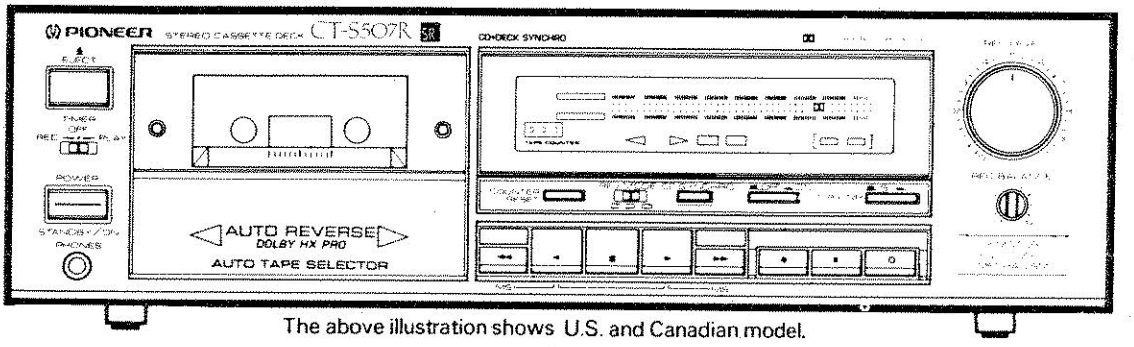
Operating Instructions

STEREO CASSETTE DECK

CT-S507R



The above illustration shows U.S. and Canadian model.

Thank you for buying this Pioneer product.
Please read through these operating instructions so you will know how to operate your unit properly. After you have finished reading this instructions, keep the manual in a safe place for future reference.
In some countries or regions, the shape of the power plug and power outlet may sometimes differ from that shown in the drawings. However, the method of connecting and operating the unit is the same.

WARNING: TO PREVENT FIRE OR SHOCK HAZARD, DO NOT EXPOSE THIS APPLIANCE TO RAIN OR MOISTURE.

IMPORTANT NOTICE
[FOR U.S. and Canadian models]

The serial number for this equipment is located on the rear panel. Please write this serial number on your enclosed warranty card and keep it in a secure area. This is for your security.

[For Canadian model]

This digital apparatus does not exceed the Class B limits for radio noise emissions from digital apparatus set out in the Radio Interference Regulations of the Canadian Department of Communications.

[Pour le modèle Canadien]

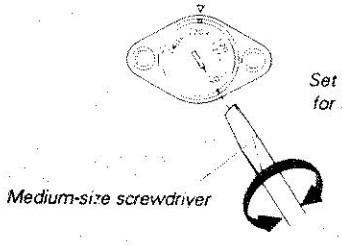
L'interférence, radioélectrique générée par cet appareil numérique de type B ne dépasse pas les limites énoncées dans le Règlement sur les perturbations radioélectriques, section appareil numérique, du Ministère des Communications.

LINE VOLTAGE SELECTOR SWITCH

Only multi-voltage models are provided with this switch.
U.S., Canadian, European, U.K., and Australian models are not provided with this switch.
Mains voltages in Saudi Arabia are 127V and 220V only. Never use this model with 110V setting in Saudi Arabia.

The line voltage selector switch is on the rear panel. Before your model is shipped from the factory, this switch is set to the power requirements of the destination. Check that it is set properly before plugging the power cord into the AC wall socket. If the voltage is not properly set or if you move to an area where the voltage requirements differ, adjust the selector switch as follows.

1. Disconnect the power cord.
2. Use a medium-size screwdriver.
3. Insert the screwdriver into the groove on the voltage selector, and adjust so that the tip of the arrow points to the voltage value of your area.



"This product complies with the Radio Interference requirements of the EC (European Community) Directive 87/308/EEC."

PIONEER®
The future of sound and vision.

IMPORTANT 1

The lightning flash with arrowhead, within an equilateral triangle, is intended to alert the user of the presence of uninsulated "dangerous voltage" within the product's enclosure that may be of sufficient magnitude to constitute a risk of electric shock to persons.

CAUTION
RISK OF ELECTRIC SHOCK
DO NOT OPEN

CAUTION
TO PREVENT THE RISK OF ELECTRIC SHOCK, DO NOT REMOVE COVER (OR BACK). NO USER-SERVICEABLE PARTS INSIDE. REFER SERVICING TO QUALIFIED SERVICE PERSONNEL.

The exclamation point within an equilateral triangle is intended to alert the user of the presence of important operating and maintenance (servicing) instructions in the literature accompanying the appliance.

IMPORTANT 2

If the apparatus is fitted with AC mains power outlet(s) (see REAR PANEL FACILITIES for convenient connection of additional Hi-Fi component(s). Make all connections to the AC outlet(s) and the signal terminals first. Connect the plug to the wall socket last. make sure that the power switch is off.

FOR USE IN THE UNITED KINGDOM

The wires in this mains lead are coloured in accordance with the following code:

Blue: Neutral
Brown: Live

As the colours of the wires in the mains lead of this apparatus may not correspond with the coloured marking identifying the terminals in your plug proceed as follows:
The wire which is coloured blue must be connected to the terminal which is marked with the letter N or coloured black.
The wire which is coloured brown must be connected to the terminal which is marked with the letter L or coloured red.
Equipment sold in the U.K. is not supplied with a power plug.

SAFETY INSTRUCTIONS

READ INSTRUCTIONS — All the safety and operating instructions should be read before the appliance is operated.

RETAIN INSTRUCTIONS — The operating instrucions should be retained for future reference.

HEED WARNING — All warnings on the appliance and in the operating instructions should be adhered to.

FOLLOW INSTRUCTIONS — All operating and use instructions should be followed.

WATER AND MOISTURE — The appliance should not be used near water — for example, near a bathtub, washbowl, kitchen sink, laundry tub, in a wet basement, or near a swimming pool, etc.

LOCATION — The appliance should be installed in a stable location.

WALL OR CEILING MOUNTING — The appliance should not be mounted to a wall or ceiling.

VENTILATION — The appliance should be situated so that its location or position does not interfere with its proper ventilation. For example, the appliance should not be situated on a bed, sofa, rug, or similar surface that may block the ventilation openings; or, placed in a built-in installation, such as a bookcase or cabinet that may impede the flow of air through the ventilation openings.

HEAT — The appliance should be situated away from heat sources such as radiators, heat registers, stoves, or other appliances (including amplifiers) that produce heat.

POWER SOURCES — The appliance should be connected to a power supply only of the type described in the operating instructions or as marked on the appliance.

POWER-CORD PROTECTION — Power-supply cords should be routed so that they are not likely to be walked on or pinched by items placed upon or against them, paying particular attention to cords at plugs, convenience receptacles, and the point where they exit from the appliance.

POLARIZATION — If your purchased product is provided with a polarized power plug, please read the following instructions. This product is equipped with a polarized alternating current line plug (a plug having one blade wider than the other). This plug will fit into the power outlet only one way. This is a safety feature. If you are unable to insert the plug fully into the outlet, try reversing the plug. If the plug should still fail to fit, contact your electrician to replace your obsolete outlet. Do not defeat the safety purpose of the polarized plug.

CLEANING — The appliance should be cleaned only with a polishing cloth or a soft dry cloth. Never clean with furniture wax, benzine, insecticides or other volatile liquids since they may corrode the cabinet.

POWER LINES — An outdoor antenna should be located away from power lines.

NONUSE PERIODS — The power cord of the appliance should be unplugged from the outlet when left unused for a long period of time.

OBJECT AND LIQUID ENTRY — Care should be taken so that objects do not fall and inquids are not spilled into the enclosure through openings.

DAMAGE REQUIRING SERVICE — The appliance should be serviced by a Pioneer authorized service center or qualified service personnel when:

- The power-supply cord or the plug has been damaged; or
- Objects have fallen, or liquid has been spilled into the appliance; or
- The appliance has been exposed to rain; or
- The appliance does not appear to operate normally or exhibits a marked change in performance; or
- The appliance has been dropped; or the enclosure damaged.

SERVICING — The user should not attempt to service the appliance beyond that described in the operating instructions. For all other servicing, contact the nearest Pioneer authorized service center.

OUTDOOR ANTENNA GRAUNDING — If an outside antenna is connected to the antenna terminal, be sure the antenna system is grounded so as to provide some protection against voltage surges and built up static charges.
In the U.S.A. section 810 of the National Electrical Code, ANSI/NFPA No. 70-1984, provides information with respect to proper grounding of the mast and supporting structure, grounding of the lead-in wire to an antenna discharge unit, size of grounding conductors, location of antenna discharge unit, connection to grounding electrodes, and requirements for the grounding electrode. See Fig. A.

CART — An appliance and cart combination should be moved with care. Quick stops, excessive force, and uneven surfaces may cause the appliance and cart combination to overturn.

NEC NATIONAL ELECTRIC CODE

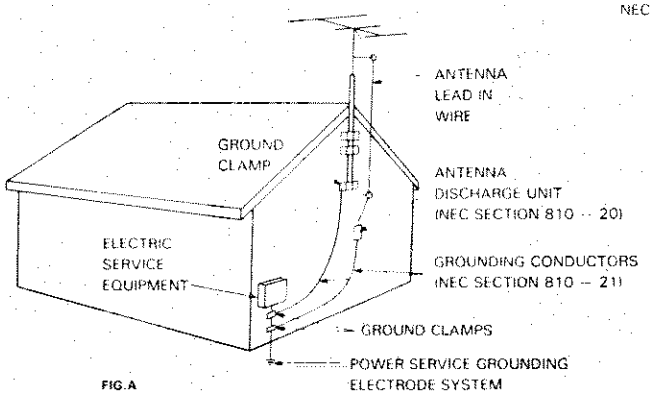

ANTENNA LEAD IN WIRE
GROUND CLAMP
ANTENNA DISCHARGE UNIT (NEC SECTION 810 — 20)
ELECTRIC SERVICE EQUIPMENT
GROUNDING CONDUCTORS (NEC SECTION 810 — 21)
GROUND CLAMPS
POWER SERVICE GROUNDING ELECTRODE SYSTEM (NEC ART 250, PART H)

FIG.A

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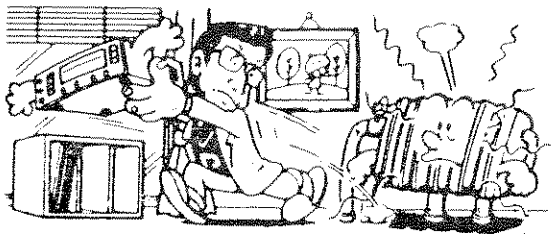
INSTALLATION

When installing the deck, avoid locations with high temperature or humidity, and be sure that the location is well ventilated.

- ... not install the deck in locations subject to direct sunlight, or ... to a space heater or other heating device, since the finish ... internal parts may be affected adversely. Malfunctions may ... result if the unit is installed in a humid or dusty location.
- ... avoid installations next to kitchen counters or other place ... subject to oily smoke or heat.



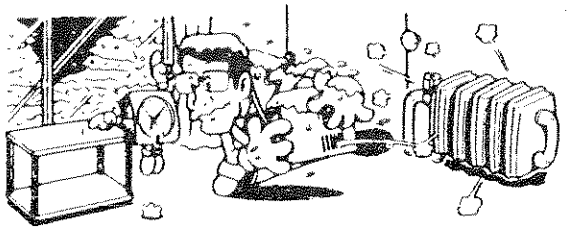
- ... you place the unit directly on top of an amplifier, it may ... pick up humming or other noise. Also, if the amplifier ... generates a large amount of heat, the unit may break down.
- ... you place the unit near a television set, it may pick up ... noise which may be recorded as a whistling tone on the ... tape. In such a case, either install the unit away from the ... television set or switch OFF the television set.

NOTE:

... installing the cassette deck, do not place a cloth over the ... or block the ventilation openings in any other way.

DEW CONDENSATION

When the unit is moved from the cold to a warm room, or the temperature changes quickly, condensation will form on the mechanical parts and this will affect the performance of the tape. In such cases, leave the unit in a warmer atmosphere for about one hour or change the room temperature gradually.



POWER-CORD CAUTION

Handle the power cord by the plug. Do not pull out the plug by tugging the cord and never touch the power cord when your hands are wet as this could cause a short circuit or electric shock. Do not place the unit, a piece of furniture, etc., on the power cord, or pinch the cord. Never make a knot in the cord or tie it with other cords. The power cords should be routed such that they are not likely to be stepped on. A damaged power cord can cause fire or give you an electrical shock. Check the power cord once in a while. When you find it damaged, ask your nearest PIONEER authorized service center or your dealer for a replacement.

...NFORMATION TO USER (FOR U.S. MODEL)

... equipment generates, uses and can radiate radio frequency ... and if not installed and used properly, that is, in ... with the manufacturer's instructions, may cause ... interference to radio and television reception. ... has been type tested and found to comply with ... limits for a Class B computing device in accordance ... specifications in Subpart J of Part 15 of FCC ... which are designed to provide reasonable protection ... such interference in a residential installation. ... however, there is no guarantee that interference ... occur in a particular installation.

If this equipment does cause interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- reorient the receiving antenna.
- relocate the equipment with respect to the receiver.
- move the equipment away from the receiver.
- plug the equipment into a different outlet so that equipment and receiver are on different branch circuits.

If necessary, the user should consult the dealer or an experienced radio/television technician for additional suggestions. The user may find the following booklet prepared by the Federal Communications Commission helpful:

"How to Identify and Resolve Radio-TV Interference Problems."

This booklet is available from the US Government Printing Office, Washington, D.C., 20402. Stock No. 004-000-00345-4.

The above instructions apply only to units which will be operated in the United States.

HOW TO HANDLE CASSETTE TAPES

CHECK CASSETTE BEFORE USE

Bear in mind the following points before loading cassette tapes.

Is the tape loose, or is some of the tape outside the cassette?

If some of the tape is projecting outside the cassette shell or if it is loose, it may not enter between the capstan and pinch roller. This will prevent the tape from being supplied or damage the tape itself. In cases like these, insert a pencil into the reel hole and take up the slack (Fig. A).

Some cassette tapes come with a plastic or thick paper stopper which prevents tape slack. Remove this stopper when loading the tape and replace it after having used the cassette.

What are the accidental erasure prevention tabs for?

A cassette is provided with these tabs so that important or otherwise valuable recordings will not be erased accidentally.

When the tab (Fig. B) on the cassette shell is broken off with the tip of a screwdriver, it will not be possible to activate the recording function even by pressing the recording button, so valuable recordings will not be erased in error. To re-record a cassette on which tabs have been broken off, simply stick a piece of double adhesive tape over the tab areas, as shown in Fig. C.

In case of metal tape or chrome tape, take sufficient care that the sensor hole (Fig. D, E, F) is not blocked.

When this hole is blocked, the automatic tape selector mechanism does not operate correctly.

NOTE:

The accidental erasure prevention tabs are located at the top left on both sides A and B (1 and 2), so that material on each side can be prevented from being erased in error.

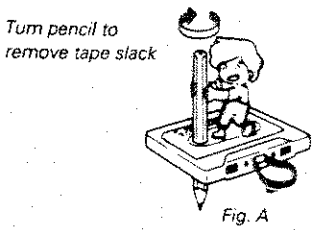


Fig. A

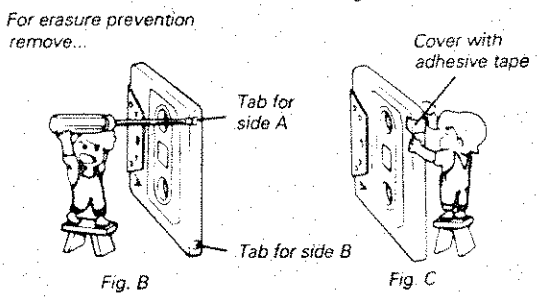


Fig. B

Fig. C

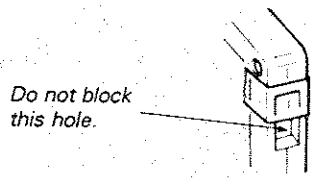


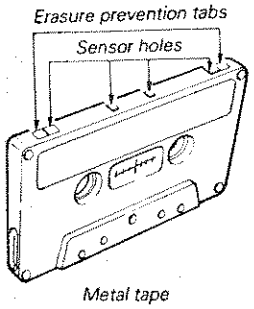
Fig. D

AUTOMATIC TAPE SELECTOR FUNCTION

This unit is equipped with an automatic tape selector function which utilizes the sensor holes on the tape cassette to determine the type of tape being used, in order to set the deck to match the tape recording bias and equalization.

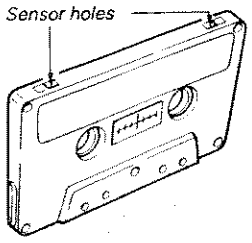
REGARDING THE TAPE CASSETTE SENSOR HOLES

- Do not use FeCr tapes with this unit.
- When using metal tapes, be sure the tape cassettes have sensor holes.



Metal tape

Fig. E



CrO_2 tape

Fig. F

TIPS ON USING CASSETTE TAPES

- It is recommended to completely fast forward and fast reverse the tape before recording. This prevents the damage to the cassette deck due to irregular wound tape.
- Leader tape (which does not allow sound to be recorded on it) is provided at the beginning of a cassette tape. Start recording after allowing the tape to run for about 5 seconds so that the leader tape clears the recording head.
- Do not leave a cassette tape exposed to the environment. Store the cassette in its case so that dust and dirt do not adhere to the tape after use, and so that the tape is prevented from becoming slack. Choose a location which is not exposed to the effects of magnetism, moisture dust, dirt and oil for storing the tapes.
- **Because C-120 tapes are so thin, they easily jam in the pinch roller and capstan, and they are susceptible to other trouble such as irregular winding. Try not to use them with this unit.**

CONNECTIONS

- Read through the operating instructions of the stereo components which you intend to connect to this unit.
- Turn on the power only after all the connections are completed.
- Make sure that the plugs are inserted securely. Improper connection may generate noise.

CD•DECK SYNCHRO jack
If this unit is used together with a Pioneer CD player equipped with the synchro function, synchro recording from the CD player can be carried out with one touch of a button. (→ page 12)
Use the supplied CD-Deck synchro control cord to connect the CD•DECK SYNCHRO jack on this unit to the CD•DECK SYNCHRO jack on the CD player.

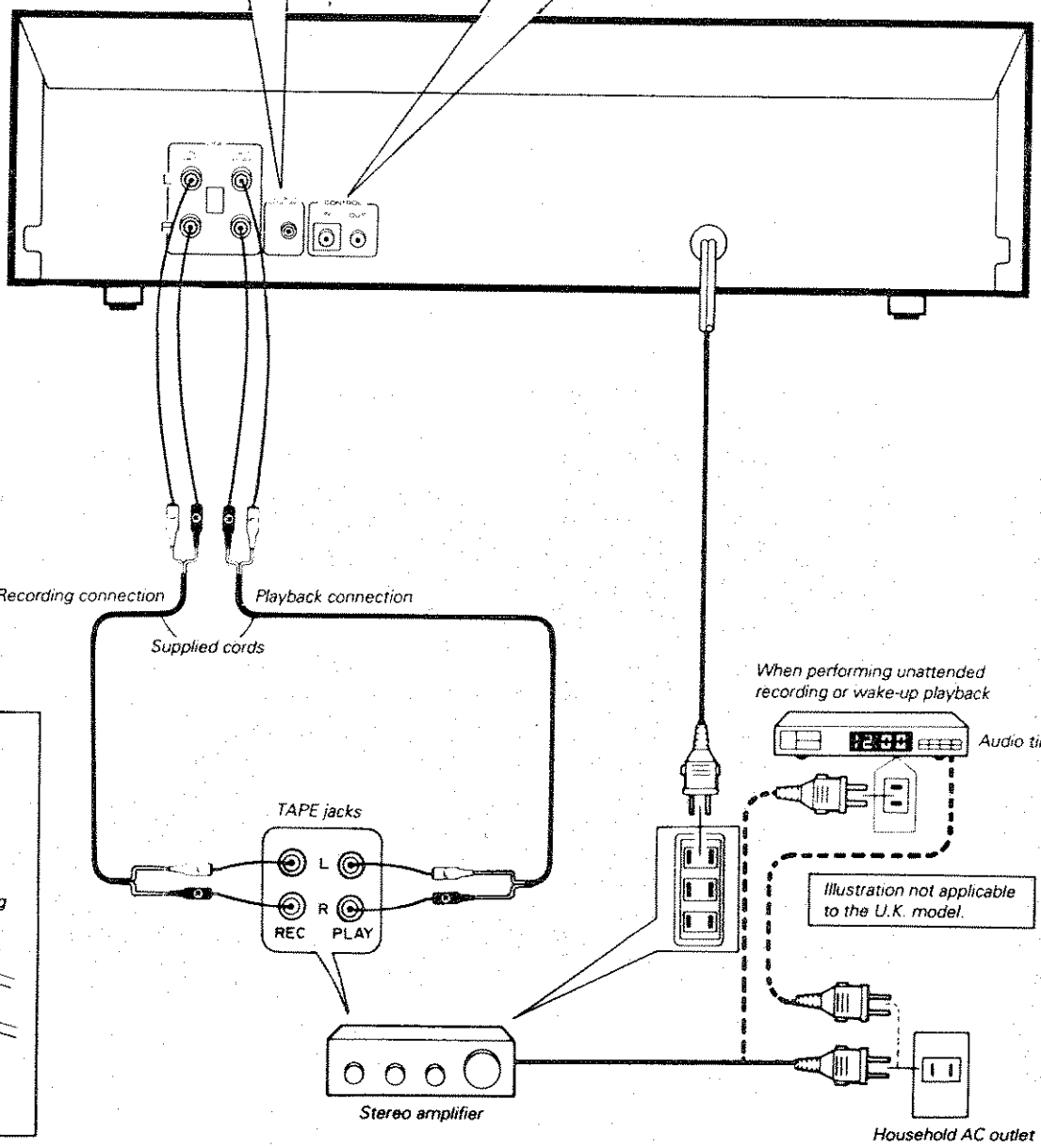
PIONEER System remote control

Connect the CONTROL IN jack to a component equipped with the PIONEER System remote control (bearing the SR mark), and you will be able to operate this component from the hand-held remote controller that comes with the component connected.

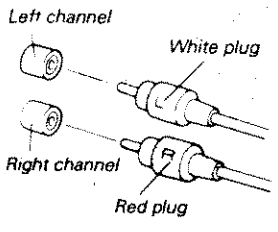
(For U.S. and Canadian models.)

CONTROL IN jack
Connect the jack to the CONTROL OUT jack of a component equipped with the PIONEER System Remote Control (bearing the SR mark) using the supplied mini-plug cord, and you will be able to operate this component using the system remote control.

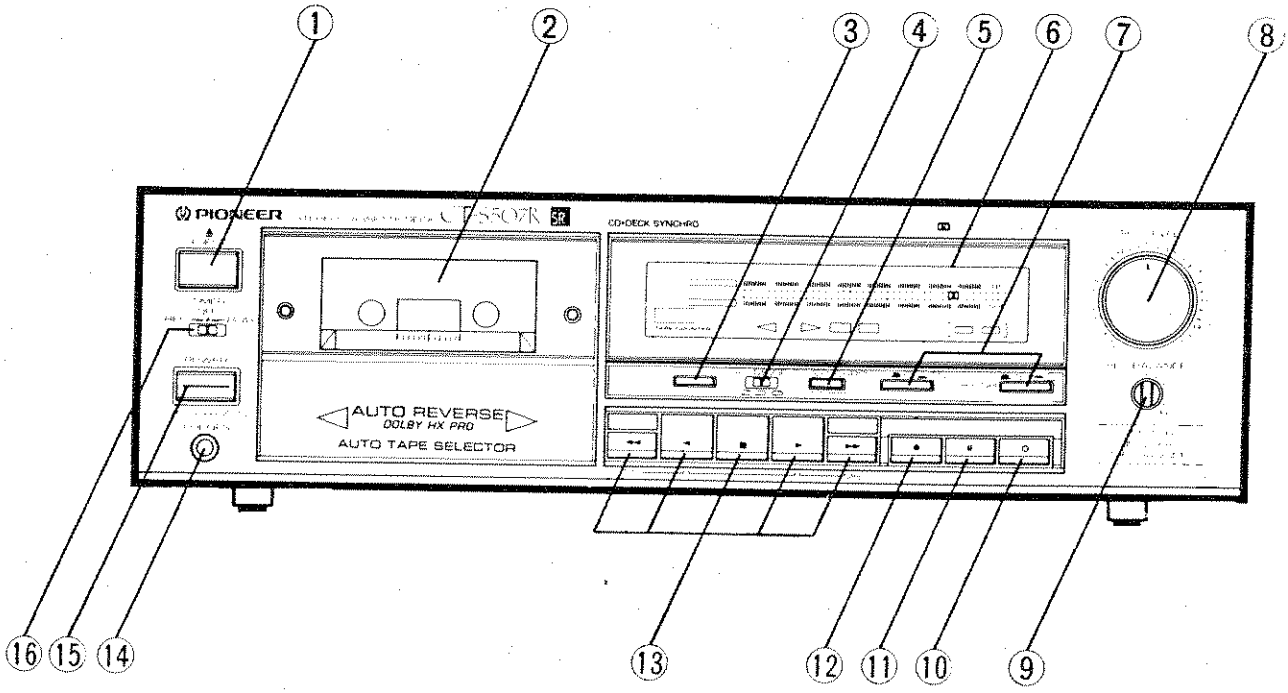
CONTROL OUT jack
Intermediary output of remote control singnals from the above input jack. Connect it to the CONTROL IN jack of another component compatible with the POINEER System Remote Control.



Connecting the input/output cords
Connect the plugs properly.



FRONT PANEL FACILITIES



① EJECT button

Press to open the cassette door.

- Do not press the EJECT button while the tape is running. Press the stop button ■ first and then press the EJECT button.
- The cassette door may not open when the EJECT button is pressed if the power was turned off while the tape was running. If this occurs, turn the power back on and then press the EJECT button.

② Cassette door

Press the EJECT button to open the cassette door and insert a cassette tape into the cassette door with the exposed (tape) side facing down. To close the cassette door, press in on the front of the door until a click sound is heard.

③ COUNTER RESET button

Sets the tape counter to 000.

④ REV MODE (reverse mode) switch

⇄:

Tape transport stops after one side of a tape is played or recorded.

⇉:

When the forward play button ► is pressed, each side of the tape is played or recorded once. When the reverse play button ◄ is pressed to play or record on the tape, tape transport stops at the end of the reverse side (the side facing away from you when you loaded the tape).

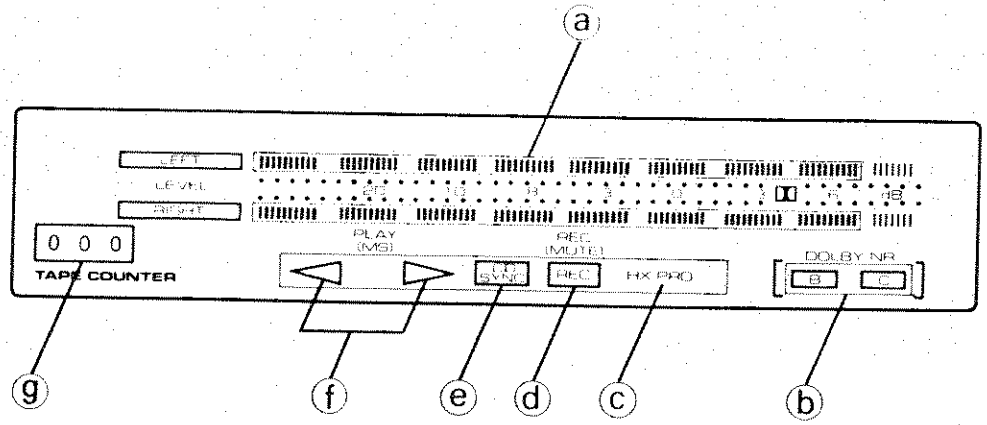
↻:

When the forward play button ► is pressed, both sides of the tape are played continuously until 32 sides have been played. When the reverse play button ◄ is pressed, both sides of the tape are played continuously until 31 sides have been played. In record mode, both sides of the tape are recorded once and then tape transport stops.

⑤ CD SYNCHRO button

This button is used to carry out CD-Deck synchro recording from a CD player. (→ page 12)

⑥ Display window



ⓐ Level meter
Indicates the left and right channel signal levels. Indicates the recording level during recording, and the recorded level during playback. The DD mark indicates the Dolby noise reduction system standard level.

ⓑ Dolby* NR B/C indicator
Indicates B – type or C – type Dolby noise reduction.

*
- *Dolby noise reduction and HX PRO headroom extension manufactured under license from Dolby Laboratories Licensing Corporation. HX PRO originated by Bang & Olufsen.*
- *"Dolby", the double-D symbol DD and "HX PRO" are trademarks of Dolby Laboratories Licensing Corporation.*

ⓒ Dolby HX PRO indicator
This unit is provided with a built-in Dolby HX PRO Headroom Extension circuit. The Dolby HX PRO indicator always appears on the display when the POWER switch is turned on.

ⓓ Recording indicator (REC)
Lights when the record button is pressed. Flashes during record mute mode.

ⓔ CD SYNC indicator
Lights when synchro recording from a CD player is being carried out.

ⓕ PLAY/MiS (Music Search) indicators (► , ◄)
These indicators show the tape running direction. When the forward play button ► is pressed, the ► indicator lights. When the reverse play button ◄ is pressed, the ◄ indicator lights.
These indicators blink when the unit is in record-pause mode or play-pause mode.

ⓖ TAPE COUNTER
The number on the display is incremented (or decremented) as the tape is advanced (or rewound), providing an easy reference for locating positions on a tape.

⑦ DOLBY NR switches
ON/OFF:
Switches the Dolby noise reduction system on and off.
B/C:
Switches between B — type and C — type Dolby noise reduction.

⑧ REC LEVEL control
(→ page 8)

⑨ REC BALANCE control
(→ page 8)

⑩ Record muting button (O)
When this button is pressed during recording, the deck creates a 4-second blank space on the tape and then enters record-pause mode.

⑪ Pause button (II)
Press this button when it is desired to temporarily pause playback or recording. Press the button again to resume playback or recording. Pressing the play ► (or ◄) button will also resume playback or recording.

⑫ Recording button (●)
When this button is pressed, the deck enters record-standby mode. Recording begins when the play ► (or ◄) button or pause (II) button is pressed.

⑬ Basic operation buttons
Fast-forward ►►:
When this button is pressed during stop mode, the tape is fast-forwarded in the direction of the arrows. When pressed during playback, the playback position skips forward by one selection for each press of the button (up to 15 selections), and playback resumes at the beginning of the designated selection. (Music search → page 10)
Play ◄:
Press this button to play back or record on the reverse side of the tape (the side facing away from you). (Reverse playback/recording)
Used to start recording in record-standby mode.
Stop ■:
Press this button to stop the tape transport.
Play ►:
Press this button to play back or record on the forward side of the tape (the side facing you). (Forward playback/recording)
Used to start recording in record-standby mode.
Fast-forward ◄◄:
When this button is pressed during stop mode, the tape is fast-forwarded in the direction of the arrows. When pressed during playback, the playback position skips forward by one selection for each press of the button (up to 15 selections), and playback resumes at the beginning of the designated selection. (Music search → page 10)

⑭ PHONES jack

⑮ POWER switch
After a period of approximately 4 seconds from when the POWER switch is pressed ON, the circuits become stable and operations can be carried out.

⑯ TIMER switch
REC:
Set to this position for carrying out timer recording.
OFF:
Set to this position when not using the timer. (The switch should normally be set to this position.)
PLAY:
Set to this position for carrying out timer playback.

RECORDING

- Before turning on the POWER switch, check that the TIMER switch is set to OFF. If the TIMER switch is set to REC or PLAY, recording or playback will automatically begin approximately 4 seconds after the POWER switch is turned on.

1. Press the POWER switch ⑮.

2. Load a tape into the deck.

Press the EJECT button ① to open the cassette door. Insert the tape to be used for recording into the cassette door with the exposed (tape) side facing down. Push in on the cassette door to close it.

3. Select the noise reduction system with the DOLBY NR switches ⑦.

4. Select the tape transport mode with the reverse mode (REV MODE) switch ④.

To record on both sides of the tape, set the switch to the "⇄" or "↻" position. To record on only one side of the tape, set the switch to the "→" position.

5. Press the recording (●) button ⑫.

6. Adjust the recording level using the REC LEVEL control ⑧.

Operate the amplifier to play the source you plan to record and use the REC LEVEL control ⑧ to adjust the level of the signal displayed on the level meter. (See the "SETTING THE RECORDING LEVEL" section.)

7. Start recording by pressing the appropriate play (► or ◄) button ⑬ or the pause (❚❚) button ⑪.

Single side recording (REV MODE switch: →)

To record on the forward side of the tape (the side facing you):

Press the ► button. (Forward recording)

To record on the reverse side of the tape (the side facing away from you):

Press the ◄ button. (Reverse recording)

Double side recording (REV MODE switch: ⇄ or ↻)

Press the ► button. If the ◄ button is pressed, recording will stop after only one side is recorded.

- If the pause (❚❚) button is pressed, recording will begin in the direction indicated by the ► or ◄ indicators.

To stop recording

Press the stop (■) button ⑬.

To pause recording

Press the pause (❚❚) button ⑪. To resume recording, press the pause button again or press the appropriate play (► or ◄) button ⑬.

The deck will not record on cassette tapes from which the erasure prevention tabs have been removed.

Check to see if the erasure prevention tab on the side of the tape to be recorded on is still intact. If both sides of the tape are to be recorded on, check to make sure that both erasure prevention tabs are intact. (→ page 4)

To erase the recorded contents

1. Set the REC LEVEL control ⑧ to the "0" position.

2. Press the recording (●) button ⑫.

3. Press the play (► or ◄) button ⑬ or pause (❚❚) button ⑪.

TO CREATE BLANK SPACES BETWEEN SELECTIONS

Auto recording mute:

While the deck is recording, press the record muting (**O**) button ⑩. The REC indicator flashes and the deck will create a non-recorded blank section of approximately 4 seconds on the tape and then enter record-standby mode. To resume recording, press the pause (❚❚) button ⑪.

Record mute:

If the record muting (**O**) button ⑩ is pressed and held, the deck will create a non-recorded blank section on the tape of more than 4 seconds for as long as the button is held pressed. The deck will enter record-pause mode when the button is released.

SETTING THE RECORDING LEVEL

Adjustment of the recording level is a key point in making recordings with good sound quality. It is necessary to set the recording level as high as possible in order to optimize the signal-to-noise ratio and expand the dynamic range. However, if the recording level is set excessively high, the recorded sound will be distorted. On the other hand, if in order to avoid distortion the recording level is set too low, tape hiss noise will become noticeable. If the maximum level of the sound to be recorded is set right at the limit (the maximum recording level) of the tape, the characteristics of the tape will be fully utilized and good sound quality will result. The maximum recording level of a tape depends on its type, so it is necessary to make adjustments to match the type of tape in use.

With normal (NORM) and chrome (CrO_2) tapes, use the REC LEVEL control ⑧ to adjust the recording level so that the +3 dB indicator on the level display lights occasionally. With metal (METAL) tapes, adjust the recording level so that the +6 dB indicator on the level display lights occasionally.

In addition, adjust the REC BALANCE control ⑨ so that the left channel and right channel signal levels are equal. Turning the control clockwise lowers the left channel level, and turning it counterclockwise lowers the level of the right channel.

The level meter provided on this unit has a peak hold function. This function holds the peak level for 1.2 seconds to facilitate adjustment of the recording level.

In actual, the optimum recording level also varies slightly according to the type of music or brand of tape. To fully utilize tape characteristics and make even better quality recordings, it is also important for you to listen to your recordings to check the playback sound and make adjustments if necessary.

Recording balance adjustment

Use the REC BALANCE control ⑨ to compensate for unbalanced of the left and right channels due to the source to be recorded or equipment to be used. Rotating the control in the L direction increases the level of the left channel. Rotating the control in the R direction increases the level of the right channel.

■ The Dolby NR Systems

The Dolby NR systems are designed to reduce high-frequency noise (tape hiss) generated during playback. The level of low-volume, high-frequency sounds is increased during recording, and decreased by the same amount during playback to restore the original level. At the same time, high-frequency noise (the most easily perceived by the human ear) is attenuated as well.

Dolby B-type NR systems reduces high-frequency tape noise, widening the dynamic range.

Dolby C-type NR is even more powerful, applying the noise reduction effect to a wider spectrum of frequencies from the middle range.

■ The Dolby HX PRO Headroom Extension System

When recording audio signals on a magnetic tape, high-frequency signals are recorded on top of each other (recording bias) in order to compensate for the tape Recording bias depends on the frequency of the recorded sound, but generally it is fixed to a value which gives acceptable results over the whole frequency range.

The HX PRO system reads in the signal at the recording head, adjusting recording bias amplitude according to the signal condition to achieve optimum recording characteristics.

NOTE:

Avoid playingback tapes recorded using the Dolby NR systems with the DOLBY NR switch in the OFF position, or tapes recorded withou;t Dolby NR systems with the DOLBY NR switch in the ON position (B or C), since this does not allow faithful reproduction of the original sound.

PLAYBACK

1. Press the POWER switch ⑮.

2. Load a tape into the deck.

Press the EJECT button ① to open the cassette door. Insert the tape to be played into the cassette door with the exposed (tape) side facing down. Push in on the cassette door to close it.

3. Select the Dolby noise reduction systems with the DOLBY NR switches ⑦.

If the tape to be played was recorded with Dolby NR off, set the DOLBY NR ON/OFF switch to the OFF position. If the tape was recorded with type B or type C Dolby noise reduction, set the DOLBY NR ON/OFF switch to ON and DOLBY NR B/C switch accordingly to B or C.

4. Select the tape transport mode with the reverse mode (REV MODE) switch ④.

To repeatedly play both sides of the tape, set the switch to the "↻" position. To play both sides of the tape once, set the switch to the "⊃" position. To play only one side of the tape, set the switch to the "⇉" position.

5. Start playback by pressing the appropriate play (► or ◄) button ⑬.

Single side playback (REV MODE switch: ⇉)

To play the forward side of the tape (the side facing you):

Press the ► button.

To play the reverse side of the tape (the side facing away from you):

Press the ◄ button.

Double side playback (REV MODE switch: ⊃)

Press the ► button to begin playback from the forward side or press the ◄ button to begin playback from the reverse side.

When the ◄ button is pressed with "⊃" setting, playback stops at the end of the reverse side. (→ page 6)

To stop playback

Press the stop (■) button ⑬.

To temporarily pause playback

Press the pause (❚❚) button ⑪. To resume playback, press the pause button again.

To fast-forward or rewind the tape

- Perform this operation when the unit is in stop mode. If the tape is playing, press the stop (■) button before carrying out this operation.

  When the ► indicator is lit, press the ►► button to fast-forward the tape toward the end, or press the ◄◄ button to rewind the tape toward the beginning.

  When the ◄ indicator is lit, press the ►► button to rewind the tape toward the beginning, or press the ◄◄ button to fast-forward the tape toward the end.

To search for the beginning of a selection

Press the ◄◄ or ►► button during playback (Music Search → on this page).

USING THE COUNTER

The number displayed on this counter changes according to the running of the tape.

Before starting playback or recording, press the COUNTER RESET button ③ to reset the tape counter to 000. Jotting down the value displayed on the counter at important points during recording or playback makes it easy to find those points later.

MUSIC SEARCH

By searching for and detecting the blank spaces between selections, the music search function can skip forward or backward to a designated selection and begin playing that selection automatically.

The music search function can skip forward or backward a maximum of 15 selections.

To return to the beginning of the current selection

When the ► indicator is lit (during forward playback)

Press the ◄◄ button once to return to the beginning of the current selection.

When the ◄ indicator is lit (during reverse playback)

Press the ►► button once to return to the beginning of the current selection.

To return to the beginning of a selection located before the current selection

When the ► indicator is lit (during forward playback)

Press the ◄◄ button the same number of times as the number of selections to be skipped plus one.

When the ◄ indicator is lit (during reverse playback)

Press the ►► button the same number of times as the number of selections to be skipped plus one.

- To return to the beginning of the selection immediately before the current one, press the ◄◄ (or ►►) button twice. To return to the beginning of the selection located 2 selections before the current one, press the ◄◄ (or ►►) button three times.

To advance to the beginning of a selection located after the current selection

When the ► indicator is lit (during forward playback)

Press the ►► button the same number of times as the number of selections to be skipped.

When the ◄ indicator is lit (during reverse playback)

Press the ◄◄ button the same number of times as the number of selections to be skipped.

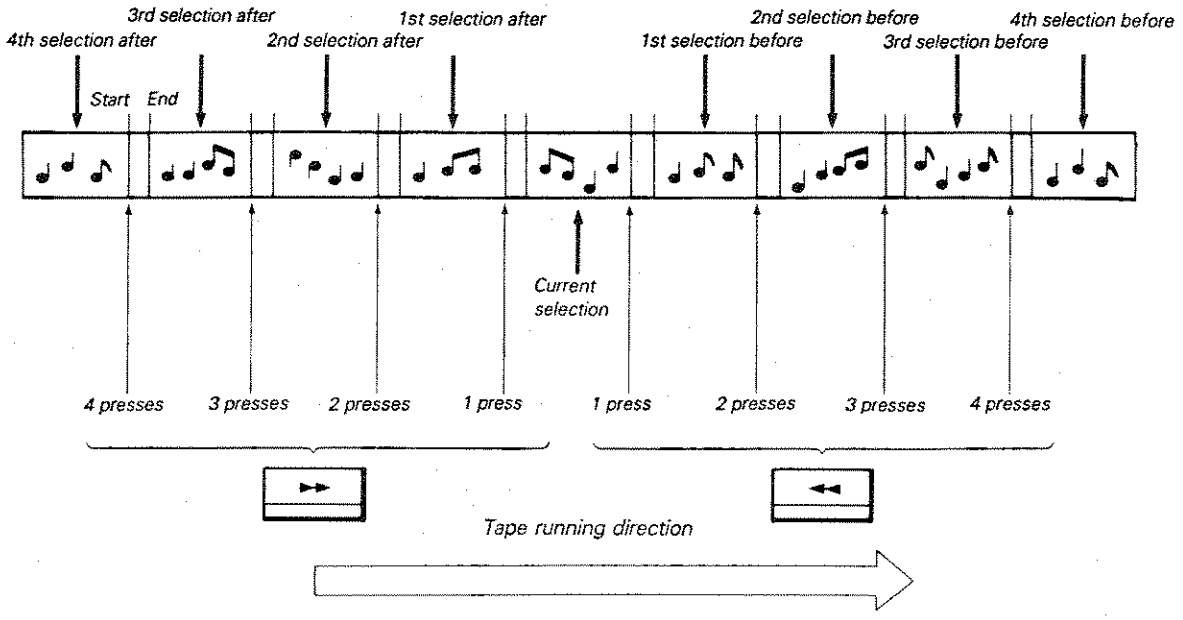
How to count the number of selections to be skipped

The music search function is a function which searches for and detects the blank spaces between selections in order to skip forward or backward to a designated selection. Accordingly, when the ◄◄ (or ►►) button is pressed once to skip back to the beginning of the current selection, the music search function searches for the blank section which exists in front of the current selection and starts playback from that location.

To skip to the selection immediately following the current selection, press the ►► (or ◄◄) button once. The music search function searches for and detects the blank section located directly after the current selection and starts playback from that location. In the same manner, you can skip ahead to any other selection by simply counting the number of selections after the current selection that the desired selection is located.

To skip to the selection immediately before the current selection, press the ◄◄ (or ►►) button twice. The music search function searches for and detects the second blank section located before the current playback location. (The first blank section is located between the current selection and the preceding selection, and the second blank section is located between the preceding selection and the selection before it.) In the same manner, you can skip back to any other selection by simply counting the current selection as 1 and then adding the number of selections before the current selection that the desired selection is located.

Example for when the ► indicator is lit



The music search function may not be able to accurately locate the blank spaces between selections when the following types of tape are played, resulting in mis-operation. If this occurs, keep in mind that this is a characteristic of the music search function and is not a malfunction of the cassette deck.

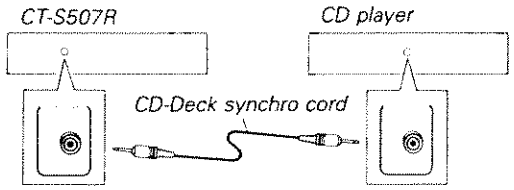
- Tapes which do not have blank spaces of 4 seconds or more between selections.
- Tapes such as classical music tapes which contain low-level sections of several seconds in length or which contain breaks in the middle of a selection of 4 seconds or longer.
- Tapes which contain many interruptions, such as tapes of meetings or foreign language learning tapes.
- Tapes which contain excessive noise in the blank sections between selections.

CD-DECK SYNCHRO RECORDING

- CD-Deck synchro recording can be carried out when this unit is connected to a Pioneer CD player equipped with a CD•DECK SYNCHRO jack.

Connection

Connect the CD•DECK SYNCHRO jack of this unit to the CD•DECK SYNCHRO jack of the CD player using the supplied CD-Deck synchro control cord.



NOTES:

- *Keep the input and output jacks connected between the amplifier and this unit. Otherwise, the CD synchro recording cannot be carried out.*
- *Even when the CD player is connected to the amplifier with an optical fiber cable, connect the CD player to the amplifier or this unit with the input and output cords with pin plug.*

1. **Load a compact disc into the CD player.**
2. **Load the tape to be used for recording into the cassette deck.**
- Advance the tape to the point from which the recording is to begin.
3. **Adjust the recording level (→ page 8).**
4. **Press the stop button ⑮ of this unit and the CD player.**
- If this unit and the CD player are not in stop mode, CD synchro recording cannot be carried out.
5. **Press the CD SYNCHRO button ⑤.**
- The cassette deck begins recording simultaneously with the start of play on the CD player.

When the compact disc finishes playing:
The CD player enters stop mode and the cassette deck enters record-pause mode and then switches to stop mode after one minute.

When the CD player changes discs (with twin-tray or multi-play CD players):
The cassette deck enters record-pause mode and then starts recording again when the CD player starts playing the next disc. A 4-second blank section is automatically created between selections.

When the end of the tape is reached while the CD player is still playing:

The CD player returns to the beginning of the currently-playing selection and then enters the pause mode. To resume recording, load another tape and check the tape running indicator to ensure that the tape is moving in the desired direction. If not, press the playback (▶ or ◀) button to change the tape direction, then immediately press the stop (■) button. The tape running indicator will change direction. Synchro recording can be resumed by pressing the CD SYNCHRO button ⑤ again. (The CD SYNCHRO button should be pressed within 1 minute. If more than 1 minute elapses, the CD player will enter stop mode.)

NOTES:

- *The CD synchro function only works with Pioneer CD players designed for CD-Deck synchro operation.*
- *Be sure to connect this unit to the CD player using the supplied CD-Deck synchro control cord.*

What type of CD player can be used?

As long as the CD player is a Pioneer CD player designed for CD-Deck synchro operation, any type of CD player, including twin-tray or multi-play CD players, can be used.

Program recording is also possible.

If the desired selections are programmed into the CD player beforehand, recording will be carried out in the programmed order.

Timing of pressing CD SYNCHRO button:

Although recording begins when CD SYNCHRO button ⑮ is pressed, the CD player does not start playing until CD SYNCHRO button ⑮ is released. You can utilize this feature to allow the tape to advance past the leader section before starting CD play or create a non-recorded section on the tape.

TIMER RECORDING/PLAYBACK

TIMER RECORDING

(Unattended recording from a tuner, etc.)

1. **Press the POWER switch ⑮.**
2. **Load the tape to be used for recording.**
3. **Set the TIMER switch ⑯ to the REC position.**
4. **Set the DOLBY NR switches ⑦ to the desired position.**
5. **Set the desired transport mode using the REV MODE switch ④.**
6. **To record the forward side of a tape, make sure that the ► indicator is lit. To record the reverse side of a tape, make sure that the ◄ indicator is lit.**
   To change the side to be recorded:
   Press the play (►) button and immediately press the stop (■) button for forward recording.
   Press the play (◄) button and immediately press the stop (■) button for reverse recording.
7. **Select the source to be recorded with the amplifier.**
8. **Press the record (●) button ⑫ and adjust the recording level.**
9. **Press the stop (■) button.**
10. **Set the audio timer to the desired time.**

The power to the various components is cut off.
When the time set on the audio timer arrives, power is supplied to the various components and recording begins automatically.

Has one or both of the erasure prevention tabs been removed from the cassette?
Recording cannot be carried out if the erasure prevention tabs on the side of the tape to be recorded on is not intact. Use a cassette that has its erasure prevention tabs intact.

TIMER PLAYBACK

(Wake-up playback, etc.)

1. **Press the POWER switch ⑮.**
2. **Load the tape to be played.**
3. **Set the TIMER switch ⑯ to the PLAY position.**
4. **Set the DOLBY NR switches ⑦ to the desired position.**
5. **Select the desired transport mode using the REV MODE switch ④.**
6. **Press the appropriate play (► or ◄) button.**

Adjust the volume level on the amplifier.

7. **Press the stop (■) button.**
8. **Set the audio timer to the desired time.**

The power to the various components is cut off.
When the time set on the audio timer arrives, power is supplied to the various components and playback begins automatically.

Adjust the volume and tone controls on the amplifier beforehand.
The tape should be played and the volume and tone controls adjusted beforehand so that the desired volume and sound quality will be set when timer playback begins.

When the timer function is not being used, be sure that the TIMER switch ⑯ is set to the OFF position. If the TIMER switch ⑯ is left at the PLAY or REC position, playback or recording will automatically begin when the power is switched on.

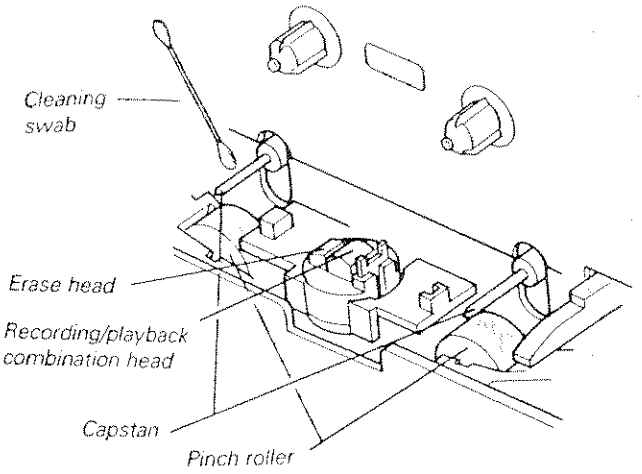
Audio timer connections
Refer to the operating instructions supplied with the audio timer.

MAINTENANCE

CLEANING THE HEADS, PINCH ROLLERS AND CAPSTANS

The heads, pinch rollers and capstans are parts which are liable to get dirty quite easily. In particular, if the heads are dirty, the high-frequency components are not reproduced and the stereo balance is impaired, resulting in a deterioration of the playback sound. It is therefore recommended that the head section be cleaned with cleaning fluid and use it to wipe the heads, capstans and pinch rollers.

1. Press the EJECT button to open the cassette door.
2. Clean the heads, capstans, and pinch rollers using a cleaning swab moistened with cleaning fluid.



NOTE:
Do not load a tape after cleaning the head section until the cleaning fluid has completely dried (this takes two or three minutes).

DEMAGNETIZING THE HEADS

After using the cassette deck over a period of time, the heads will become magnetized. The same effect is also caused by bringing a screwdriver, magnet or other magnetized object too close to the heads. This causes loss of high-frequency sound during recording and playback, and is also a cause of interference noise. The heads should be regularly demagnetized with a head demagnetizer (eraser) which can be purchased at dealer shops.
When demagnetizing the heads, be sure the cassette deck POWER switch ⑮ is off. For detailed instructions, consult the operating manual for your head demagnetizer (eraser).

CLEANING THE FRONT PANEL SECTION

Wipe the front panel and the cassette door when dusty or greasy with a soft cloth containing a small amount of ordinary liquid soap. Then, wipe dry with a cloth. Never use volatile spirits like thinners, benzine or alcohol because they will damage the panel finish.

TROUBLESHOOTING

Incorrect operations are often mistaken for trouble and malfunctions. If you think that there is something wrong with this component, check the points below. Sometimes the trouble may lie in another component. Investigate the other components and electrical appliances being used.
If the trouble cannot be rectified even after exercising the checks listed below, ask your nearest PIONEER authorized service center or your dealer to carry out repair work.

Symptom	Cause	Remedy
POWER		
Cannot turn power on.	• The power plug is removed. • The component (stereo amplifier, audio timer, etc.) to which the power cord is connected is off.	• Insert the power plug correctly. • Turn the stereo amplifier or audio timer on.
CASSETTE DOOR		
The door does not open.	The deck is not in stop mode (tape is moving).	Press the stop (■) button.
The door does not close.	The cassette is not properly loaded.	Reinsert the cassette.
PLAYBACK		
Immediately stops.	• The tape is completely wound. • The tape is slack.	• Play back in the opposite direction. • Rewind the tape. • Take up tape slack (see page 4).
The level meter does not work.	• The tape is not recorded. • The tape head is dirty.	• Replace the tape with a recorded one. • Clean the head (see page 13).
No sound	• The amplifier input selector is not correctly set. • The amplifier volume level setting is too low. • Connection problems (wrong connection, cord removed, poor contact, broken wire).	• Set the amplifier input selector correctly. • Turn the amplifier volume control up. • Connect securely.
RECORDING		
The recording indicator does not light up.	The cassette erasure prevention tabs are broken.	• Replace the cassette with one whose tabs are intact. • Cover the hole under the tab (see page 4).
The level meter does not work.	• The REC LEVEL control is set too low. • The amplifier is not delivering a recording signal (from the tuner, CD player, etc.). • Wrong connection, connection cord removed, poor contact, broken wire.	• Turn the REC LEVEL control up. • Set the amplifier recording output selector correctly. • Check connections.
Immediately stops.	• The tape is completely wound up. • The tape is slack.	• Recording the opposite direction. • Rewind the tape. • Take up tape slack (see page 4).
Cannot record	The head is dirty.	Clean the head (see page 13).
CD synchro recording cannot be carried out.	CD-Deck synchro control cord and Input/Output cords are not connected.	Connect correctly (see page 12).

Symptom	Cause	Remedy
POOR SOUND QUALITY		
Unstable or interrupted sound	• The head, pinch rollers and capstans are dirty. • The tape is not uniformly wound.	• Clean the head, etc. (see page 13). • Completely fast-forward or rewind the tape.
No high frequencies	• A tape recorded without Dolby NR is being played back with the DOLBY NR switch in the B or C position. • The head is dirty.	• Set the DOLBY NR switch to OFF. • Clean the head (see page 13).
High frequencies are emphasized.	A Dolby NR-encoded tape is being played back with the DOLBY NR switch in the OFF position.	Set the DOLBY NR switch to the same position used for recording.
Sound from previous recordings remains when re-recording a tape.	The head is dirty.	Clean the head (see page 13).
The sound is distorted.	• Recording level is too high. • The recorded signal itself is distorted. • The head is dirty.	• Turn the REC LEVEL control down when recording. • Replace the cassette. • Clean the head (see page 13).
Too much noise	• A noisy tape is being used. • Incomplete insertion of a connection cord, poor contact. • Recording level is too low. • The head is dirty. • The head is magnetized.	• Replace the cassette. • Check connections. • Turn the REC LEVEL control up when recording. • Clean the head (see page 13). • Demagnetize with a head demagnetizer.
OTHERS		
The music search function does not work.	Blanks between selections are less than 4 seconds long.	Use a tape with blanks more than 4 seconds long.
Recording or playback starts suddenly when turning power on.	The TIMER switch is set to the PLAY or REC Position.	Set the TIMER switch to OFF.
Cannot use the remote control system	The control cord is not connected.	Connect the control cord.

SPECIFICATIONS

System ..... 4 track, 2-channel stereo
Heads ..... "Hard Permalloy" recording/playback head x 1
"Ferrite" erasing head x 1
Motor ..... DC servo motor (capstan) x 1
DC motor (reel) x 1
Wow and Flutter ..... No more than 0.055% (WRMS)
No more than ±0.16% (DIN)
Fast Winding Time ..... Approximately 100 seconds
(C-60 tape)
Frequency Response (±6 dB)
-20 dB recording:
Normal tape ..... 25 to 16,000 Hz
Chrome tape ..... 25 to 17,000 Hz
Metal tape ..... 25 to 18,000 Hz
Signal-to-Noise Ratio
Dolby NR OFF ..... More than 57 dB

Noise Reduction Effect
Dolby NR B type ON ..... More than 10 dB (at 5 kHz)
Dolby NR C type ON ..... More than 19 dB (at 5 kHz)

Harmonic Distortion ..... No more than 1.0% (0 dB)
Input (Sensitivity)
LINE (INPUT) ..... 63 mV (Input impedance 52 kΩ)
Output (Reference level)
LINE (OUTPUT) ..... 316 mV (Output impedance 5.8 kΩ)
Headphone ..... 0.25 mW (Load impedance 8 Ω)

Subfunctions

- DOLBY NR B/C types
- DOLBY HX PRO
- Music search over ±15 selections
- CD-Deck synchro recording capability
- Peak level meter (7 seg + ∞)
- Automatic space recording mute
- One-touch recording pause
- Automatic tape selector
- Automatic reverse
- Phones jack
- TIMER Recording/Playback
- System remote control compatible
(For U.S. and Canadian models)

Miscellaneous

Power Requirements
U.S., Canadian models ..... AC 120V, 60 Hz
Australian models ..... a.c. 240 Volts~, 50/60 Hz
U.S. military and other destination models .....
AC 110V/120V–127V/220V/240V(switchable), 50/60 Hz
Power Consumption
U.S., Canadian models 16W
Australian models 18W
U.S. military, other destination models 18W
Dimensions ..... 420 (W) x 120 (H) x 272 (D) mm
16-1/16 (W) x 4-11/16 (H) x 10-11/16 (D) in
Weight (without package) ..... 3.9 kg (8 lb 9 oz)

Accessories

Operating instructions 1
Connection cord with pin plugs 2
CD-Deck synchro control cord 1
System remote control cord 1
(U.S. and Canadian model only)

NOTE:

Specifications and design subject to possible modifications without notice due to improvements.

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<90G00WY5S04>

Printed in Japan <RRB1050-D>